

Fig. 1

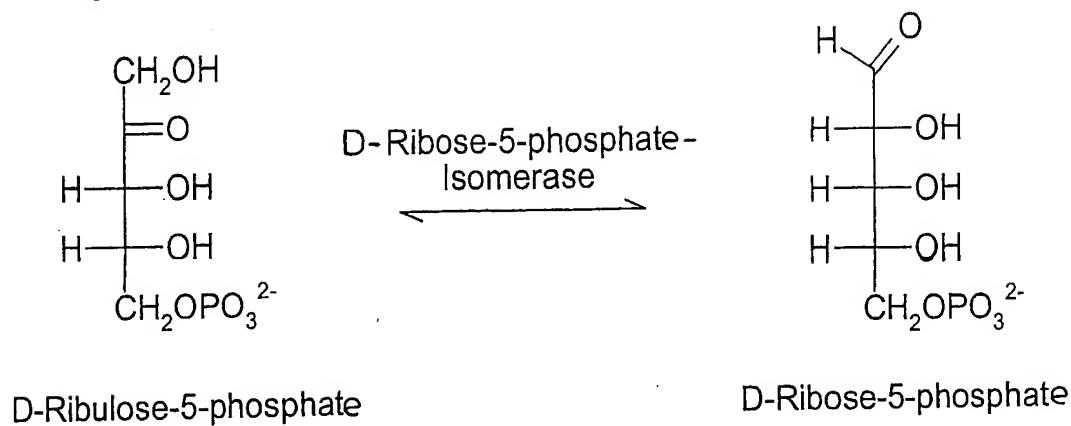


Fig. 2

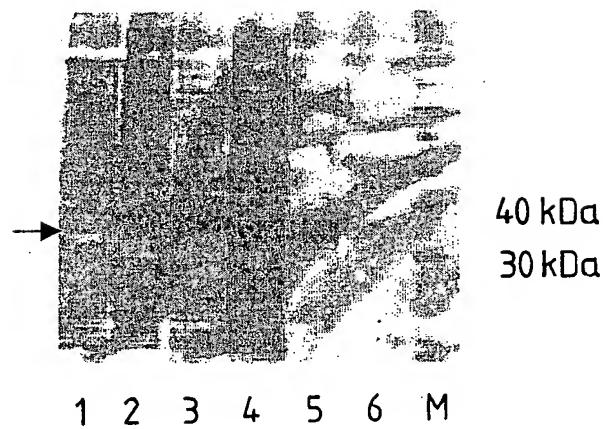


Fig. 3

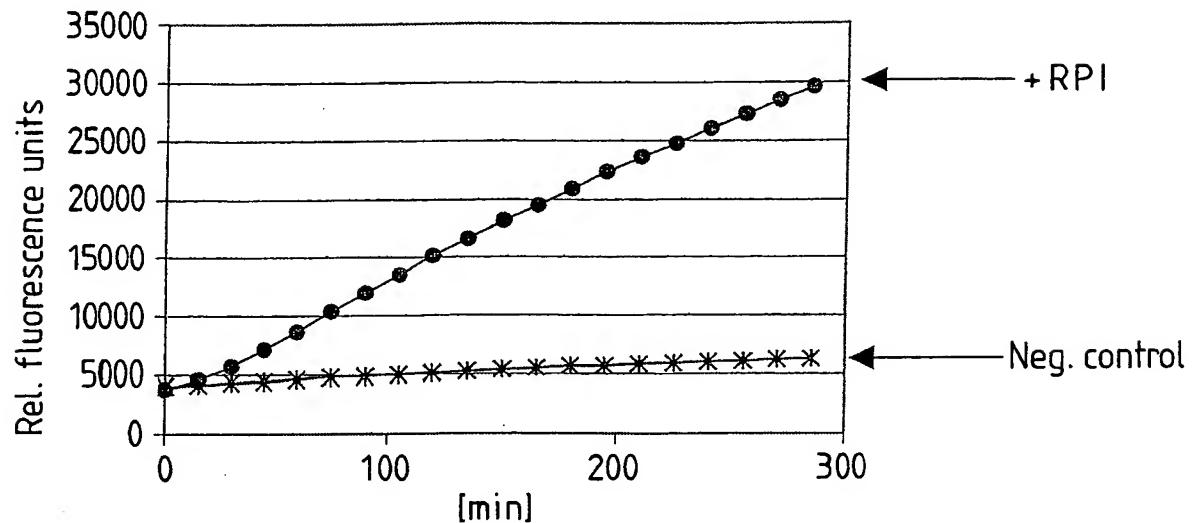


Fig. 4

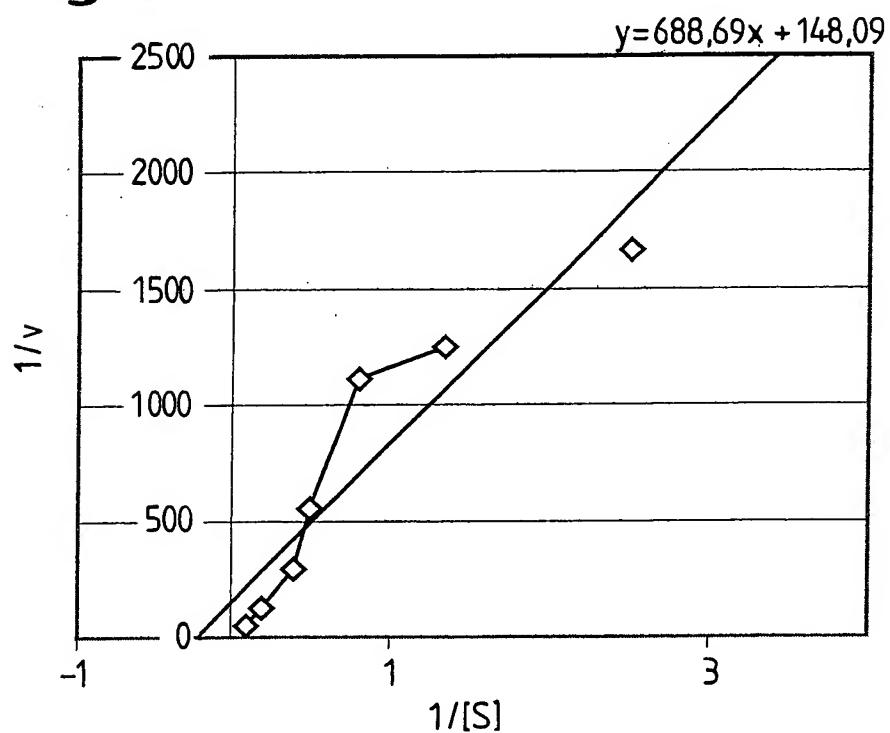


Fig. 5

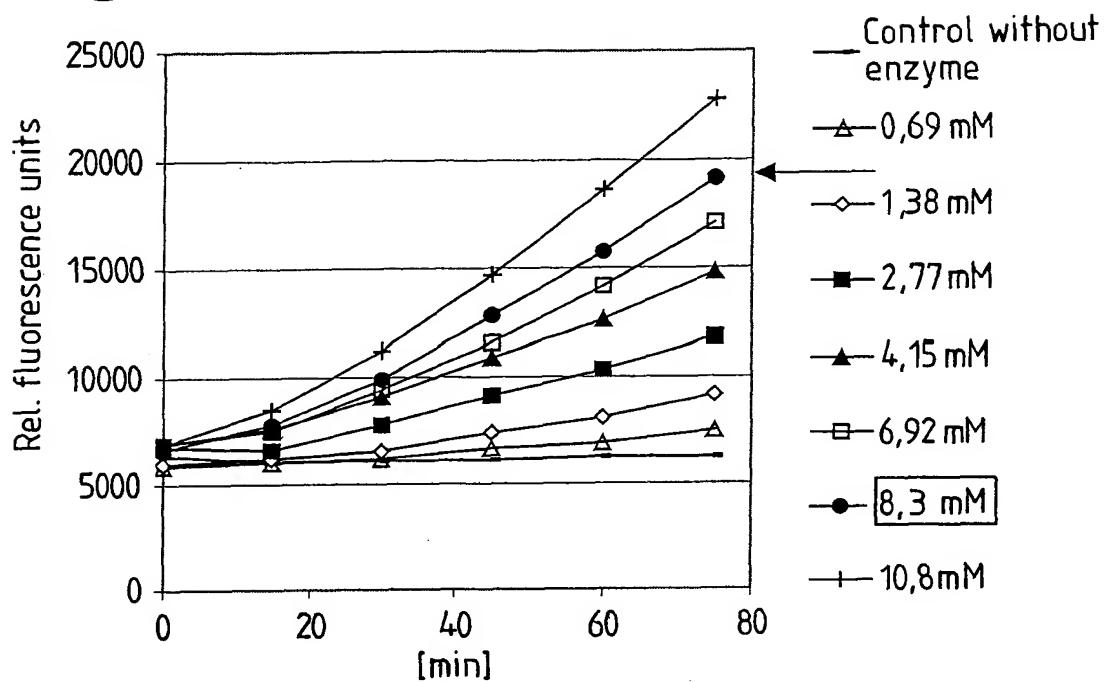


Fig. 6

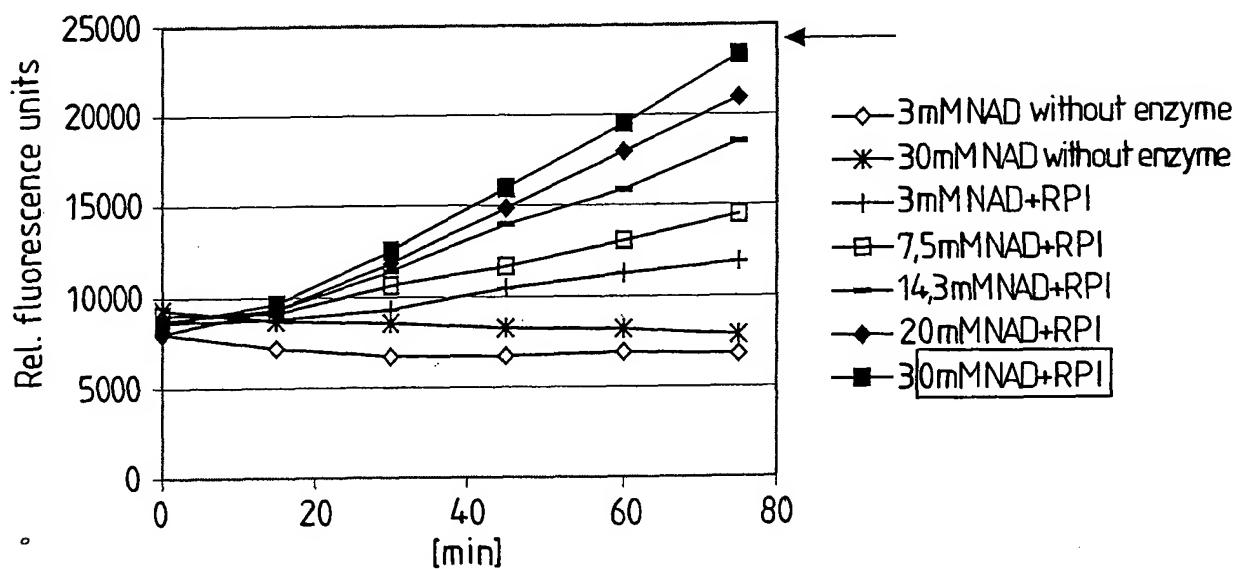


Fig. 7

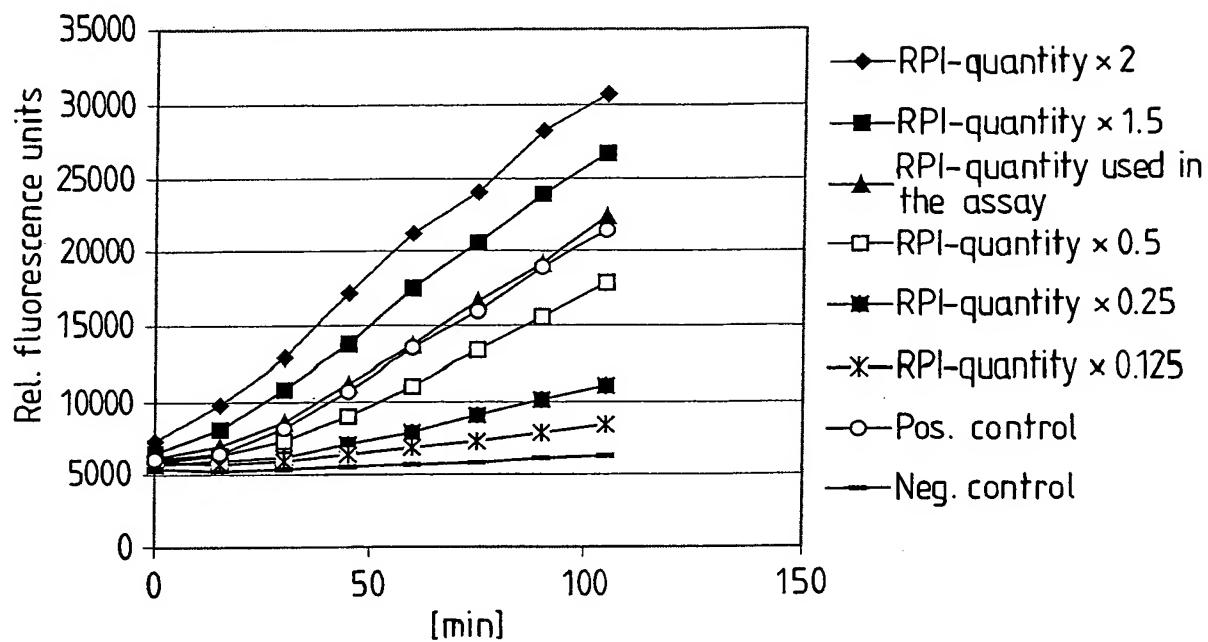


Fig. 8

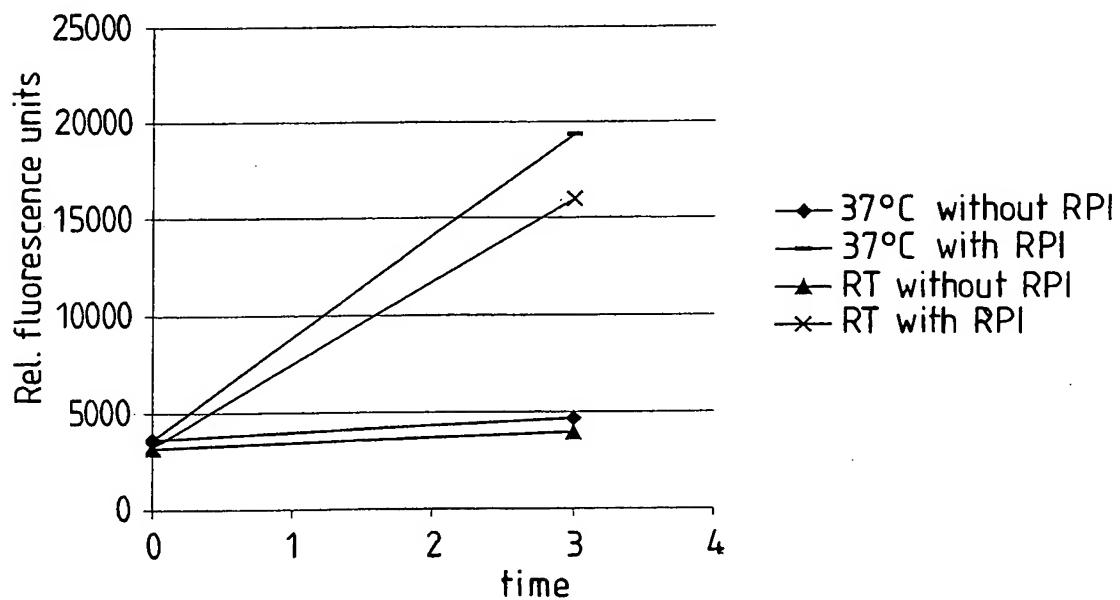


Fig. 9

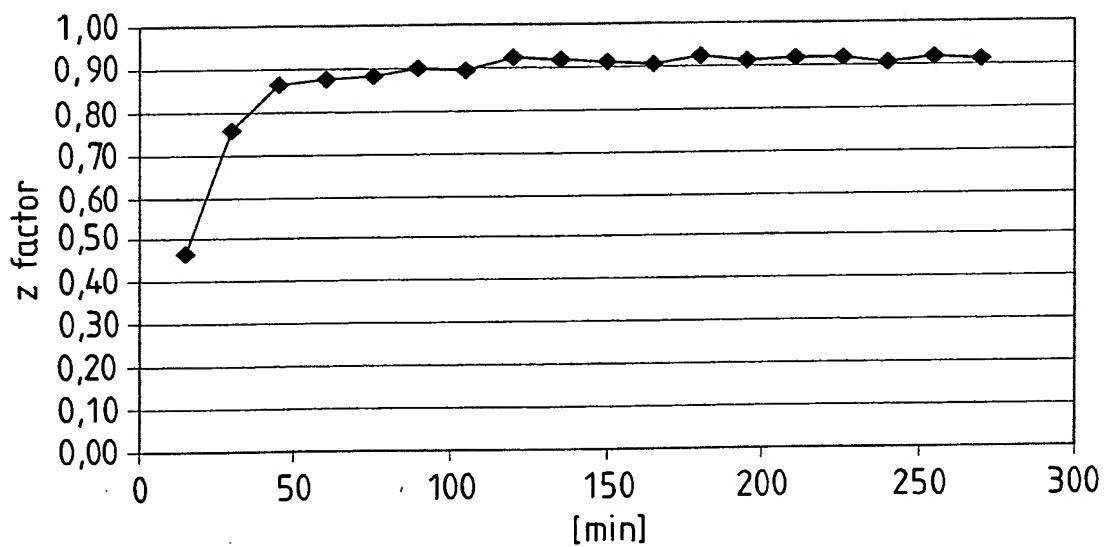


Fig. 10

U. maydis	.....MQSRL LSLVSSHLS KRCFIARSAA LAPLLLHPQR
LRLTCPRSFS	
S_pombe_144_12	.....
.....
S_c_RKI1	.....
.....
mouse_rpi	.....
.....
drosophila_RPI	MTYGHVACLL QVFVENEINL SPDQSCMNCC GGCHDTRSSG
CYKAEEFCG	
C_elegans_rpi	.....
.....
a_thaliana_hyp.RPI	.....
.....
E.coli_RPIA	.....
.....

U. maydis	SQQSGPRKMA SSNATNSTSA ASAANTNSSA FKSAELAALS
GVEAAKRAAA	
S_pombe_144_12	..... MDSAEEKKLD. LS
PIELAKRILAC	
S_c_RKI1	..... MAAGVPKIDA LE.... SLGN
PLEDAKRAAA	
mouse_rpi	..... MS
KADEAKKLAS	
drosophila_RPI	QQAACKGRLY KCNTIESENL LSGAAATLHT QIR..MMDDI
ALDAAKKTAIA	
C_elegans_rpi	..... MVTS TGP..EAEA
PIDEQAKKRAA	
a_thaliana_hyp.RPI	..... MAL AYDPLFITSD KSLSAFDVAS SPP..QPMNL
TQDELKRIAA	
E.coli_RPIA	..... M
TQDELKAVG	

U. maydis	YAAVDNHVK. PQHEI GGIGS GSTV PYVVER IAQ..QGPAY
N...AKRWFV	

S_pombe_144_12	HMAVDENYP.	ENPKVIGIGS	GSTIVYVVER	L...LTKPG.
...VDSVVFI				
S_c_RKI1	YRAVDENLKF	DDHKIGIGS	GSTIVYVAER	IGQYLHDPKF
YEVASKFICI				
mouse_rpi	HTAVENHVKN	N..QVLIGIGS	GSTIVHAVQR	IAERVKQEN.
....LDLICI				
drosophila_RPI	RTAVDQWVTE	DT.KILIGIGS	GSTIVYAVQR	IAERVWKEGE
....LTDLICV				
C_elegans_rpi	FACGEKYVQS	G..CRLGVGS	GSTIVKYLVEY	LKQGFQNGS.
...LKDIICV				
a_thaliana_hyp.RPI	YKAEVFVES.	G..MVLGLGT	GSTIAKHAVDR	IGELLRQGK.
...LENIVGI				
E.coli_RPIA	WAALQYVQP.	G..TIVGVCT	GSTAHHFIDA	LG...TMKG.
....QIEGAV				

U. maydis	PTGEGQSRELI	TNAGLRLGDV	DSFPSIDVTI	DGADEVDNAL
NCIKGGGACH				
S_pombe_144_12	PTGEGSKQLT	VNNGLRLGDP	DCYPNVDVSF	DGADEVDDNL
QCIIKGCCGACL				
S_c_RKI1	PTGEGOSRNLI	LDNKLQLGSI	EQYPRIDIIF	DGADEVDENL
QLIKGGGACL				
mouse_rpi	PTSGECAROLI	IQYGLTLSL	DQHPEIDLAI	DGADEVDAEL
NLIIKGCGGCL				
drosophila_RPI	PSSYQARHII	DYNLNLGDL	DRNPNIIDVAI	DGADEVDRHM
VLIKGCGGCL				
C_elegans_rpi	PTISFLTKQWL	IESGLPVSDL	DSHPELDVCI	DGADEVDGQF
TCIKGGGCOL				
a_thaliana_hyp.RPI	PTSKKTQEQA	LSLGIPLSL	DAHPVIDLSI	DGADEVDPFL
NLVKGRRGSSL				
E.coli_RPIA	SSSDASTEKL	KSLGIHFSDL	NEVDSLGIYV	DGADEVINGHM
QMIKGCGGAAL				

U. maydis	LREKVLAEAA	NEFWWADYR	KNG.SQIGTK	WLQGVPIEVA
PFAY...AKV				
S_pombe_144_12	FQEKLIAFLA	KRIVIVADSP	KNS.HVIGEY	WKKGVPIEV
PMAY...ASI				

S_c_RK11	FQEKLVSTSA	KTFIVWADSR	KKSPKHLCKN	WRQGVPIEV
PSSY...VRV				
mouse_rpi	TQEKIVAGYA	SRHIVIADFR	KDS.KHIGDR	WHKGTPTEVI
PMAY...VPV				
drosophila_RPI	LQEKIVVASCA	KHEIVWADYT	KNS.IRLGEQ	WCRCGVPIEVA
PMAY...VPI				
C_elegans_rpi	AQEKIVQTA	KNFYVIAADYL	KDS.KHIGDR	YPN.VPIEVL
PLAA...QPL				
a_thaliana_hyp.RPI	LREKMIEGAS	KKFVVIVDDS	KMV.KHIGGS	KLA.LPVEIV
PFCWKFTAEK				
E.coli_RPIA	TREKIIASVA	EKEVCIADAS	KQV.DILG..	.KFPLPVEMI
PMAR...SAV				

U. maydis	LQNLKK.MGS	DKAVLRMG.K	AKAGPVVTDN	GNFCIDAPFP
E.AQMKDPSD	LPQLVE.LGA	IEPKLRMGap	GKAGPVVTDN	GNEIIDAHF.
S_pombe_144_12				
..GLIKNPKE	KNDLLEQLHA	EKVDIRQGGS	AKAGPVVTDN	NNFIIDADF.
S_c_RK11				
..GEISDPRK	SRAVAQKFGG	E.VELRMA.V	NKAGPVVTDN	GNFILDWKF.
mouse_rpi	KLHIEALFGG	E.ASLRMA.K	VKAGPVVTDN	GNFLIDWKFI
..DRVHKWSE				
drosophila_RPI	LRSIPRAEGG	S.CQLRQA.V	KKCCGPVITDN	GNBIIDWQFE
A.NREYDWDE				
C_elegans_rpi	LRSLLEGYGC	E.ANRLIG..	EKGKAFVTDN	GNYIVDMHVE
KNVSGRDWFA				
a_thaliana_hyp.RPI	ARQLVK.LGG	R.PEYRQG..	.....VTDN	GNVILDVHG.
..EDMGDLGA				
E.coli_RPIA				
..MEILDPIA				

U. maydis	LLKRIKLLTG	VLEVGLFCN.	ICKSAYEGND	DGTITIKTAA
G.....D	LFAKIKLLVG	VLEVGLFCD.	MISAVYEGSK	DGSVTVKKAS
S_pombe_144_12				
GEKHIIPAPV	LHREIKLLVG	VVETGLEID.	NASKANEGNS	DGSVEVTEK.
S_c_RK11				
.....				

mouse_rpi	VNTAIKMTPC	WDTCLHEIN.	MAERVYEGMQ	DGSVNVREKP
F.....				
drosophila_RPI	VNRAlTLIPG	VLETGLRVN.	MAHKCNYGMA	NCSVKVQNK.
.....				
C_elegans_rpi	IQQRLANTPG	IVETGLEFIG.	CVDAVFFAYS	DGSVKEIVNS
KKH.....				
a_thaliana_hyp.RPI	VSDAILRLPG	WVEHGMELD.	MASTVIIAGE	LG.VKIKNKH
.....				
E.coli_RPIA	MENAINAIPG	WVTVGLEANR	GADVALIGTP	DG.VKTIVK.
.....				
 U. maydis	VQEJVHFDS	KAPATA....		
S_pombe_144_12	TAAANEVDAK	VAETNAKPLN		
S_c_RK11	.....	.....
mouse_rpi	.....	.....
drosophila_RPI	.....	.....
C_elegans_rpi	.....	.....
a_thaliana_hyp.RPI	.....	.....
E.coli_RPIA	.....	.....

Fig. 11

U_m_RPI1	MQSRLLSLVS SHLVSKRCFI ARSAALAPLL LHPQRLRLTC
PRSFSSQQSG	.....
SPAC144_12	.....
.....
SC_RKI1	.....
.....
CRYNE_001022	.....
.....
CANAL_Contig6-2195	.....
.....
embl.CNS06G7H	.....
.....
NEUCR_contig	.....
.....
embl.CNS06MQK	.....
.....
embl.CNS06EST	.....
.....
embl.CNS0766C	.....
.....
embl.CNS06ZNB	.....
.....
embl.CNS06ZLP	.....
.....
embl.KLAJ9603	.....
.....

U_m_RPI1	PRKMASSNAT NSTSAASAAN TNSSAFKSAE LAALSGVEA[A]
KRAAYAAVD	[REDACTED]
SPAC144_12	..... MDSAEK KLDLSPIELA[A]
KRLACHMAVD	[REDACTED]
SC_RKI1	..... M AAGVPKIDAL ESLGNPLEDA[A]
KRAAYRAVD	[REDACTED]
CRYNE_001022	.....
.....
CANAL_Contig6-2195	..... MSSTSKVES[A]
KKLAAYKAVD	[REDACTED]
embl.CNS06G7H	..... [REDACTED]

..... NEUCR contig AAQQLIEKS
KFLAANRAVT
embl.CNS06MQK
..... embl.CNS06EST
..... embl.CNS0766C
..... embl.CNS06ZNB
..... embl.CNS06ZLP
..... embl.KLAJ9603

U_m_RPI1 NHVK.PQHEI TGIGSGSTVP YVVERTAQQG PAVNA
KRWFVPTGFO
SPAC144 12 ENYP.ENPKV TGIGSGSTVV YVVERLLT KPGVD
SVVFIPTCFO
SC_RKI1 ENLKFDHKI TGIGSGSTVV YVAERIGQYL HDPKFYEVAS
KFICIPTCFO
CRYNE 001022 QQV TGIGSGSTVP YVWDRILAQG FEANK
DRVFIPTCFO
CANAL Contig6-2195 ENFP.KDAKV TGIGSGSTVI YAAERIGQ.. LDNKD
SFICIPTCFO
embl.CNS06G7H EHKI VGTGSGSTVV YVAERIGQYL QDSQYSDLVS
KFVCIPTCFO
NEUCR contig EHLS.PTYRH TGIGSGSTVI HMDVISKLG TTITG
PMTFYPTGFO
embl.CNS06MQK
.....
embl.CNS06EST QHRV TGIGSGSTVI YVAERIGQYL RDDEYRDYVS
KFKCVATGFO
embl.CNS0766C
.....
embl.CNS06ZNB
.....
embl.CNS06ZLP

..... embl.KLAJ9603

U_m_RPI1	SRE[RE]INAGI	RIGDV.DSFP	..SIDVTIDG	ADEVDNAINC
IKGGGACHLR	[RE]	[RE]	[RE]	[RE]
SPAC144_12	SKQ[LI]VNNGI	RIGDP.DCYP	..NVDMSFDC	ADEVDDNLQC
IKGGGACLFQ	[RE]	[RE]	[RE]	[RE]
SC_RKI1	SRN[LI]LDNKI	QLGSI.EQYP	..RIDIAFDG	ADEVDENLQL
IKGGGACLFQ	[RE]	[RE]	[RE]	[RE]
CRYNE_001022	SKEL[LI]VKAGI	TIGDV.DQYA	..RIDVTIDG	ADEVDNELNS
IKGGGACQLR	[RE]	[RE]	[RE]	[RE]
CANAL Contig6-2195	SKQ[LI]IDNGI	RIGTI.EQYP	..DIDIAFDG	ADEVDPQLNL
IKGGGACLFQ	[RE]	[RE]	[RE]	[RE]
embl.CNS06G7H	SRN[LI]LDNKI	QLGSI.EQYP	..RIDIAFDG	ADEVDENLQL
IKGGGACLFQ	[RE]	[RE]	[RE]	[RE]
NEUCR contig	SRDL[QAA]GF	RIGYLSDLSP	GHALDVCFDG	ADEVDPALNL
IKGGGACLLQ	[RE]	[RE]	[RE]	[RE]
embl.CNS06MQK	[RE]....	....I.DQYP	..NVDIAFDG	ADEVDANEQL
IKGGGACLFQ	[RE]	[RE]	[RE]	[RE]
embl.CNS06EST	SKQ[LI]MDNGI	TYAIL.EQHP	..HIDIAFDG	ADEVDCNIDL
IKGGGGOLFQ	[RE]	[RE]	[RE]	[RE]
embl.CNS0766C	.RQL[LI]DNWX	RLGST.EEYP	..EIDIAFDG	ADEVDSNGL
IKCG.....Q	[RE]	[RE]	[RE]	[RE]
embl.CNS06ZNB	.....	....I.YH	..EIDIAFDG	ADEVDENLQL
IKGGGACLFQ	[RE]	[RE]	[RE]	[RE]
embl.CNS06ZLP	.....	....EQYP	..EIDIAFDG	ADEVDENLQL
IKGXGAXXLQ	[RE]	[RE]	[RE]	[RE]
embl.KLAJ9603	.....	.....	.....	.....
.....VQ	[RE]	[RE]	[RE]	[RE]

U_m_RPI1	EKVLAEEAANE	FVVVADYRK[N]	G.SQLGT...	.....
.....	[RE]	[RE]	[RE]	[RE]
SPAC144_12	EKLIAFLAKR	LIVIVADSRKN	S.HVLGEY...	.....
.....	[RE]	[RE]	[RE]	[RE]
SC_RKI1	EKLVSTSAKT	FIVVADSRKK	SPKHLGKN...	.....
.....	[RE]	[RE]	[RE]	[RE]
CRYNE_001022	EKVLAEEAADT	WLTIVADYRK[N]	S.EVLGTSVR	AFLSCLEDQT
.....	[RE]	[RE]	[RE]	[RE]

NAMSLFSLYL				
CANAL_Contig6-2195	EKIVVAASAKK	FVWADYRK	SDK.LGQL..	.....
.....				
embl.CNS06G7H	EKIVVSTSAKT	FIVVADSRKK	SPKHLGKN..	.....
.....				
NEUCR_contig	EKIVVATAARK	FVCVADSRKI	S.NHGTQ..	.....
.....				
embl.CNS06MQK	EXIVVSTSTDK	FIVVADSRKK	SPQYLGTS..	.....
.....				
embl.CNS06EST	EKIVLISTSAKI	FVWADTSSKK	SPRRIGSH..	.....
.....				
embl.CNS0766C	EKIVVAACSKQ	LIVWADYRKD	T.GVLGKG..	.....
.....				
embl.CNS06ZNB	EKIVVSTSAKK	FIVVADSRKR	SPKHLGTN..	.....
.....				
embl.CNS06ZLP	DKIVVXTXAKK	FIVVADSRKR	XXKHLGTN..	.....
.....				
embl.KLAJ9603	EKIVVSTSAKK	FIVVADSRKK	SPKYLGTN..	.....
.....				
U_m_RPI1	.....	.....	KWLGQ VPTEVAPFAV	AKVLQN....
.....				
SPAC144_12	.....	.....	WKKG VPTEVMPMAV	ASILPQ....
.....				
SC_RKI1	.....	.....	WROG VPTEIVPSSY	VRVKND....
.....				
CRYNE_001022	FIRFPMTPIE	LIASPKWTKG	IPIEVVPFAV	AKVLTN....
.....				
CANAL_Contig6-2195	.....	.....	WROG VPTEIVPNSY	SKIIQE....
.....				
embl.CNS06G7H	.....	.....	WROG VPTEIVPESAY	VRVKND....
.....				
NEUCR_contig	.....	.....	WKKG IPIEVFPMAV	PQVLGE....
.....				
embl.CNS06MQK	.....	.....	WKKG VPTEIVPSSY	VRVSKD....
.....				
embl.CNS06EST	.....	.....	WVQG VPTEIV.PAAV	NRVQDD....
.....				
embl.CNS0766C	.....	.....	WRKG VPTEVVPAAV	TKVSLD....

..... embl.CNS06ZNB WKRG [VPIEVVPSSY] VHVLTA....
..... embl.CNS06ZLP WKRG [VPIEVLPSSY] DRAVAR....
KRG[PWL]ITA
embl.KLAJ9603 WKKG [VPIEVVPSSY] VRVLSD....
.....

U_m_RPI1
.....
SPAC144_12
.....
SC_RKII
.....
CRYNE_001022
.....
CANAL_Contig6-2195
.....
embl.CNS06G7H
.....
NEUCR_contig
.....
embl.CNS06MQK
.....
embl.CNS06EST
.....
embl.CNS0766C
.....
embl.CNS06ZNB
.....
embl.CNS06ZLP TSSLTLTFGE .. IADPRKLH QDIKMLVGVV ETGLFIDNAE
KAYFGSPDGS
embl.KLAJ9603
.....

U_m_RPI1 L KKMGS..... DKAFLRM
G[KAKAG...PV]
SPAC144_12 L VELGAI..... EPKLRMG

APGKAG..PV
SC RKI1 LL EQLHAE.... . . . KVDIRQG
GSAKAG..PV
CRYNE 001022 L AHMGSPHVLP NGQPGLSLRM
GKMKAG..PV
CANAL Contig6-2195 LS KKLGAK.... . . . NVDLRQG
GKAKAG..PT
emb1.CNS06G7H LL EQLHAD.... . . . KVDIRQG
GSAKAG..PV
NEUCR_contig L ERLGRL.... . . . SAQVRSG
LPGKAG..AC
emb1.CNS06MQK LR EKLGSR.... . . . KAEVRQG
GSAKAG..PV
emb1.CNS06EST LL NLLGAK.... . . . TATLRQG
GKVKG..PV
emb1.CNS0766C L VKLGG.... . . . KPVVRSR
LPAKAG..PV
emb1.CNS06ZNB LK DRLHCK.... . . . SAIVRQG
GSAKGPGPVG
emb1.CNS06ZLP VELQLKCCPV PMWHVLTALK DRLHCK.... . . . SAIVRQG
GSAKAG..PV
emb1.KLAJ9603 LK NKLNCK.... . . . SAMVRQG

U m RPI1	VTDNGNECID	APEPEAQMKD	PS.....	DLKR
IKLITGVLEV				
SPAC144_12	VTDNGNEILD	AHEGLIK..N	PKE.....	EFAK
IKLIVGVVEV				
SC RKI1	VTDNNNHILD	ADFGE..ISD	PRK.....	EHRE
IKLIVGVVET				
CRYNE 001022	VSDNGNEILD	APFAEELMRQ	PEE.....	VELHK
IKMIGVWEV				
CANAL Contig6-2195	ITDNNNELLID	ADFGEIEIDN	VGK.....	EHEQ
IKLIVGVVET				
embl.CNS06G7H	VTDNSNEILD	ADFGE..IKD	PRT.....	THRD
IKLIVGVVET				
NEUCR contig	VTDNGLRIVD	AVEKPLLTEL	PEGKQEGEREG	VWTVDGELARR
IKETPSVABH				
embl.CNS06MQK	VTDNSNEILD	ADFGEIQ..D	PKK.....	DHQD

LKMIVGVVET	
embl.CNS06EST	VTDNNNFIID THEGD..IDD PKK..... HDN
LKAIVGVVET	
embl.CNS0766C	VTDNGNFIID CDEGEIPPAQ VAE..... NAK
LKAIVGVVET	
embl.CNS06ZNB	VTDNCNEIID ADEGE..IAD XRK..... HQD
LKMIVGVVET	
embl.CNS06ZLP	VTDNCNEIID ADE.....
.....	
embl.KLAJ9603	..... . . . . .
.....	

U_m_RPI1	GLECNI.... CK SAYEGNDGDT ITIKTAAGDV
QEGVHFDVSK	
SPAC144_12	GLECDM.... IS AWYFGSKDGS VTVKKASGEK
HIIPAPVTAA	
SC_RKII	GLEIDN.... AS KAYFGNSDGS VEVTEK....
.....	
CRYNE_001022	GLECGM.... AK AAYFGNE...
.....	
CANAL_Contig6-2195	GLETNM.... AN KAYFGEEEDGS VSV.....
.....	
embl.CNS06G7H	GLEIDN.... AS KAYFGNSDGT
.....	
NEUCR_contig	GLEYGKSGLE VESGGAQKPV AAYFGMEDGS VMVQT....
.....	
embl.CNS06MQK	GLEIDN.... AC KAYFGNAADGT VEV.....
.....	
embl.CNS06EST	GLEIGN.... AA KAYLGSPDGD VLI.....
.....	
embl.CNS0766C	GLEVSL.... AS KAYIGNADGT ITKKT....
.....	
embl.CNS06ZNB	GLEIDN.... AE KAYIGGSPDGS VELQ.....
.....	
embl.CNS06ZLP	..... . . . . .
.....	
embl.KLAJ9603	..... . . . . .
.....	

U_m_RPI1	APATA.....
SPAC144_12	ANEVDAKVAE TNAKPLN
SC_RKI1	.....
CRYNE_001022	.....
CANAL_Contig6-2195	.....
embl.CNS06G7H	.....
NEUCR_contig	.....
embl.CNS06MQK	.....
embl.CNS06EST	.....
embl.CNS0766C	.....
embl.CNS06ZNB	.....
embl.CNS06ZLP	.....
embl.KLAJ9603	.....

Fig. 12

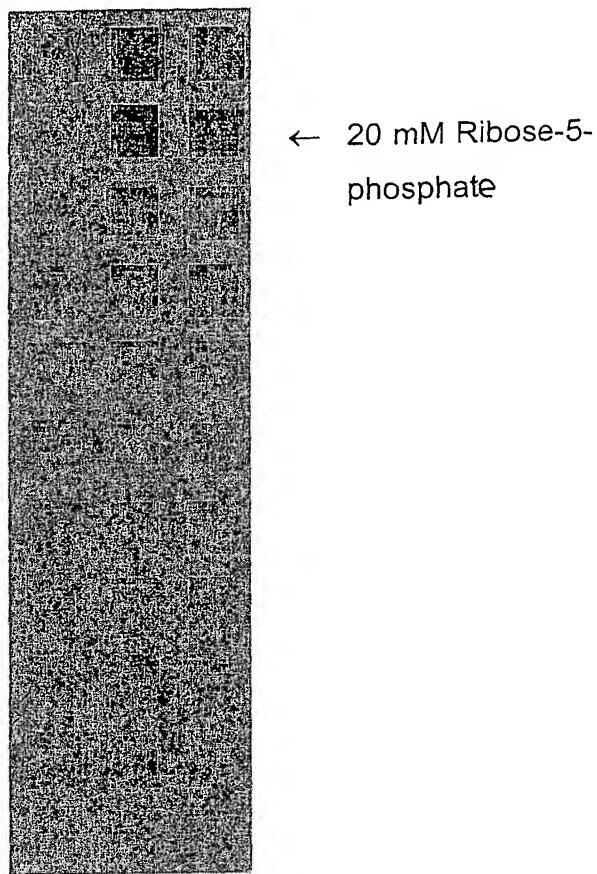


Fig. 13

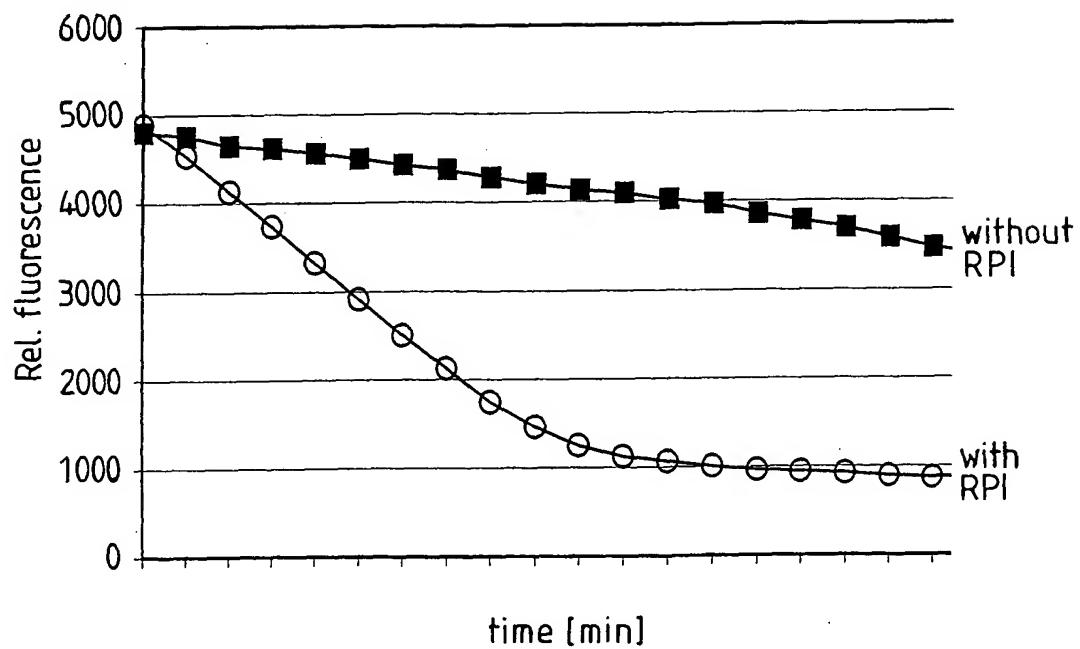


Fig. 14

